

AMENDMENTS TO THE SPECIFICATION:

Please delete the paragraph on page 5, line 13 to line 27 and replace it with the following paragraph:

--According to the invention, p185^{neu} encoding sequences can be inserted in any plasmid vectors suitable for human administration. Besides the encoding sequences, the plasmids can contain functional elements for transcription control, in particular a promoter placed upstream of the encoding sequence, preferably the CMV promoter, start and stop transcription elements, selection markers, such as ampicillin or kanamycin resistance genes, CpG motifs, a polyadenylation site or transcription activators. Transcription control elements should be compatible with the use of the vector in humans. In a preferred embodiment, the plasmids of the invention contain at least 4 CpG motifs, preferably at least 8, up to a maximum of 80. The CpG motifs (ATAATCGACGTTCAA) (SEQ ID NO: 43) of bacterial origin induce macrophages to secret IL-12, which in turn induce IFN gamma secretion by natural killer cells, thus activating a T helper lymphocyte-mediated response (Chu R. S. et al. 1997, J. Exp. Med., 186: 1623). Therefore, the insertion of CpG motifs in plasmid sequences enhances the immune response.--

Please delete the paragraphs on page 20, line 9 to page 23, line 7 and replace them with the following paragraphs:

--List of oligonucleotides synthesized and used for plasmid construction

#1. AccIII-TAA-4CpG-erbB2 sense 71 nt (SEQ ID NO: 15)

5' CCGGAAGTAAATAATCGACGTTCAAATAATCGACGTTCAAAT
AATCGACGTTCAAATAATCGACGTTCAAT 3'

#2. XbaI-TAA-4CpG-erbB2 antisense 71 nt (SEQ ID NO: 16)

5' CTAGATTGAACGTCGATTATTTAACGTCGATTATTTAACG
TCGATTATTTAACGTCGATTATTTACTT 3'

#3. AccIII-TAA-4noCpG-erbB2 sense 71 nt (SEQ ID NO: 17)

5' CCGGAAGTAAATAATAGAGCTTCAAATAATAGAGCTTCAA
TAATAGAGCTTCAAATAATAGAGCTTCAAT 3'

#4. XbaI-TAA-4noCpG-erbB2 antisense 71 nt (SEQ ID NO: 18)

5' CTAGATTGAAGCTCTATTATTTAACGCTCTATTATTTGAA GCT
CTATTATTTAACGCTCTATTATTTACTT 3'

#5. HindIII-NheI sense 27nt (SEQ ID NO: 19)

5' CTAGGAAGCTTGTAACTTGCTAGCT 3'

#6. HindIII-NheI antisense 27 nt (SEQ ID NO: 20)

5' AGCTAGCTAGCAAGTTAACACAAGCTTC 3'

#7. XbaI-4CpG-neu sense 68 nt (SEQ ID NO: 21)

5' CTAGATAATCGACGTTCAAATAATCGACGTTCAAATAATCGA
CGTTCAAATAATCGACGTTCAAGTT 3'

#8. PmeI-CpG-neu antisense 64 nt (SEQ ID NO: 22)

5' AAACTTGAACGTCGATTATTTAACGTCGATTATTTAACG GT
CGATTATTTAACGTCGATTAT 3'

#9. XbaI-4noCpG-neu sense 68 nt (SEQ ID NO: 23)

5' CTAGATAATAGAGCTTCAAATAATAGAGCTTCAAATAATAG
AGCTTCAAATAATAGAGCTTCAAGTTT 3'

#10. PmeI-4noCpG-neu antisense 64 nt (SEQ ID NO: 24)

5' AAACTTGAAGCTCTATTATTGAAGCTCTATTATTTGAAGCT
CTATTATTGAAGCTCTATTAT 3'

11. T7 primer (SEQ ID NO: 25)

5' TAATACGACTCACTATAGGG 3'

#12. BstEII-neuleader antisense 32 nt (SEQ ID NO: 26)

5' GGCGGGTTACCCGCGATTCCGGGGGGCAGGAG 3'

#13. hECD1-TM-sense-NheI 35 nt (SEQ ID NO: 27)

5' CCGGCTAGCTAGCCTGTCCTCCTGCAGGATATCC 3'

#14. hECD2-TM-sense-NheI 35 nt (SEQ ID NO: 28)

5' CCGGCTAGCTAGCGGAGGGGTCTTGATCCAGCGGA 3'

#15. hECD3-TM-sense-NheI 35 nt (SEQ ID NO: 29)

5' CCGGCTAGCTAGCCTGCCACTGACTGCTGCCATG 3'

#16. hECD4-TM-sense-NheI 35 nt (SEQ ID NO: 30)

5' CCGGCTAGCTAGCACCCTCGTCTGCCCTGC 3'

#17. hECD5-TM-sense-NheI 35 nt (SEQ ID NO: 31)

5' CCGGCTAGCTAGCCCCCTCCAGCCAGAGCAGCTCC 3'

#18. hECD6-TM-sense-NheI 35 nt (SEQ ID NO: 32)

5' CCGGCTAGCTAGAACACCCCACCTCTGCTTCGTGC 3'

#19. hECD7-TM-sense-NheI 35 nt (SEQ ID NO: 33)

CCGGCTAGCTAGCCCCAGGGAGTATGTGAATGCCA 3'

#20. pcDNA3.1/BGH Reverse primer 20 nt (SEQ ID NO: 34)

5' TAGAAGGCACAGTCGAGGCT 3'

#21. NheI-neuleader-antisense 43 nt (SEQ ID NO: 35)

5'CCGGCTAGCTAGCCGCGATTCCGGGGGCAGGAGGGCGAGGAG 3'

#22. His-myc-sense-noNheI 69 nt (SEQ ID NO: 36)

5'CTAGGCATCATCATCATCATAATGGTCATACCGGTGAAC

AAAAAACTCATCTCAGAAGAGGGATCTGG 3'

#23. His-myc-antisense-NheI 69 nt (SEQ ID NO: 37)

5'CTAGCCAGATCCTCTTGAGATGAGTTTGTTCACCGGTAT

GACCATTATGATGATGATGATGATGC 3'

#24. NheI-73neu antisense 35 nt (SEQ ID NO: 38)

5'CCGGCTAGCTAGCGCTGGCATTGGCAGGCACGTAG 3'

#25. NheI-153neu antisense 35 nt (SEQ ID NO: 39)

5'CCGGCTAGCTAGCCAGGATCTCTGTGAGACTTCGA 3'

#26. NheI-233neu antisense 35 nt (SEQ ID NO: 40)

5'CCGGCTAGCTAGGCCCTTGCACCGGGCACAAACCA 3'

#27. NheI-313neu antisense 35 nt (SEQ ID NO: 41)

5'CCGGCTAGCTAGCTCCACTTCCGTAGACAGGTAG 3'

#28. NheI-393neu antisense 35 nt (SEQ ID NO: 42)

5'CCGGCTAGCTAGCAATGCCGGAGGAGGGTCCCCA3'--